

## Completed Pollution Prevention Project Case Study

United States Department of Energy  
Office of Environmental Management  
Fact Sheet

### **A Curtain of Air Assists the Cerro Grande Rehabilitation Project Los Alamos National Laboratory**

#### Original Problem

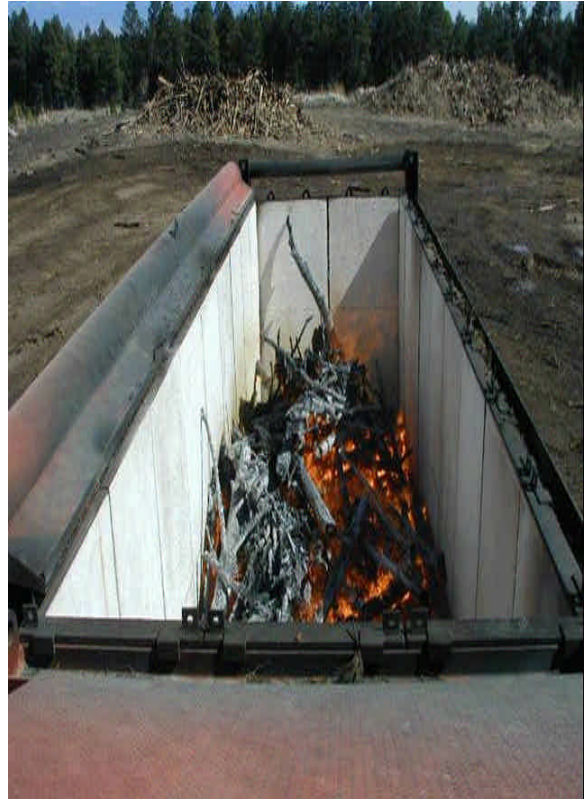
After the devastating Cerro Grande fire of 2000, the Los Alamos National Laboratory began thinning the forest on its property to protect buildings from damage in case of another wildfire. Branches that cannot be mulched or sold for lumber are burned to reduce solid waste volume, but open burning creates smoke and other air pollutants.

#### The Project Solution

The Laboratory purchased three Air Curtain Destructor units for burning the waste branches and slash before the forest-thinning project began. Branches are placed inside a pit where the fire burns, and a curtain of air covers the top opening to prevent particulates and pollutants from escaping. The particulates ultimately settle inside the compartment, and organic pollutants are broken down by heat during the cycle.

#### Value of Improvement

The forest around Laboratory buildings is thinner now and decreases the chance that any future wildfire will damage property. Over 370,000 board feet of lumber were sold to timber companies. More than 3000 cords of firewood were given away to the public. The ash resulting from burning the branches is only about 2% of the original volume. Burning wood with the Air Curtain Destructor produces 95% less sulfur dioxide than open burning.



#### DOE Monetary Benefits

Total Project Cost	NA
Lifecycle Savings	NA
Return on Investment	NA

#### Benefits At-A-Glance

- Laboratory buildings are less susceptible to fire damage.
- Over 370,000 board feet of lumber were sold, more than 3000 cords of firewood were given away, and the volume of waste slash was reduced by 98%.
- Overall air emissions are 75% lower with the Air Curtain Destructor than with open burning.

Lifecycle Waste Reduction	
Lifecycle Waste Reduction	~60,000 cubic yards of slash
Commencement Date	2001
Project Useful Life (Years)	3

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	<b>Summary Data</b>
Priority Area:	Waste Minimization Projects
Project Type:	Process Improvement
Total Project Cost:	NA
Lifecycle Savings:	NA
Implementing Group:	Cerro Grande Rehabilitation Project
Benefiting Group:	All
Useful Life Years:	3
Return on Investment:	NA
Lifecycle Waste Reduction:	~60,000 cubic yards of slash were converted to ash with less than 2% of this volume, 95% of sulfur dioxide emissions are eliminated, and overall air emissions are reduced by 75% with the Air Curtain Destructor.
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